Microsoft

.net developer training

Create XML Web Services and Applications with Visual Studio .NET

What Is Microsoft® .NET?

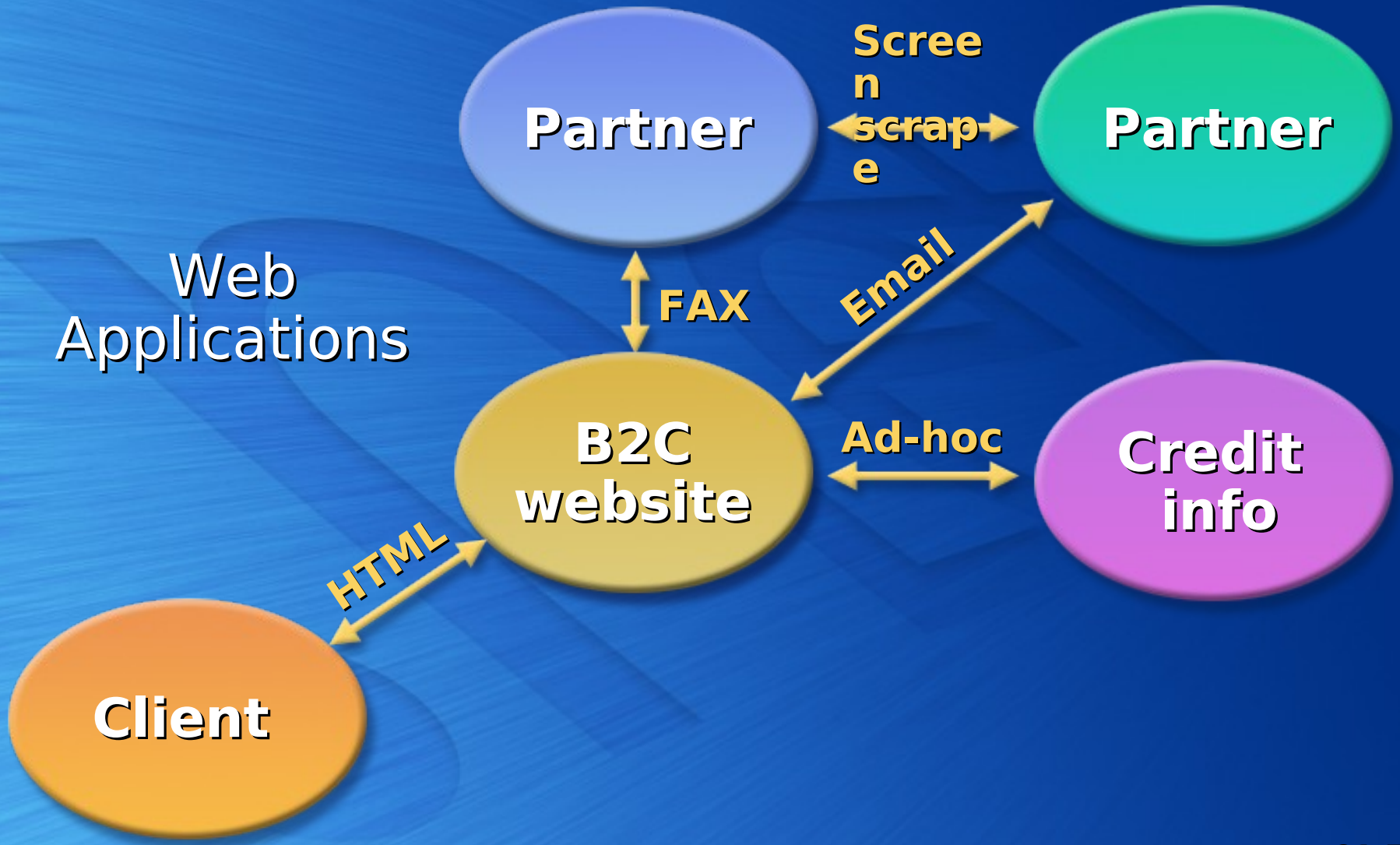
Module 01 Agenda

- Introduction
- XML
  - The Lingua Franca for Next Generation Software
  - XML Web Service
- .NET - A software platform for building and using XML Web services
- .NET
  - Building On an XML Foundation
  - .NET Clients and Servers
    - BizTalk and Orchestration
  - .NET Building Block Services

Introduction
Technology Drivers

- **Computing power**
  - Doubles every 18 months
  - PC-based data centers
- **Connectivity**
  - Low-cost, broad-reach Internet
  - Wireless, broadband access
- **Device proliferation**
  - Smart Devices - PDAs, cell phones and gas pumps

Introduction
Integration Imperative

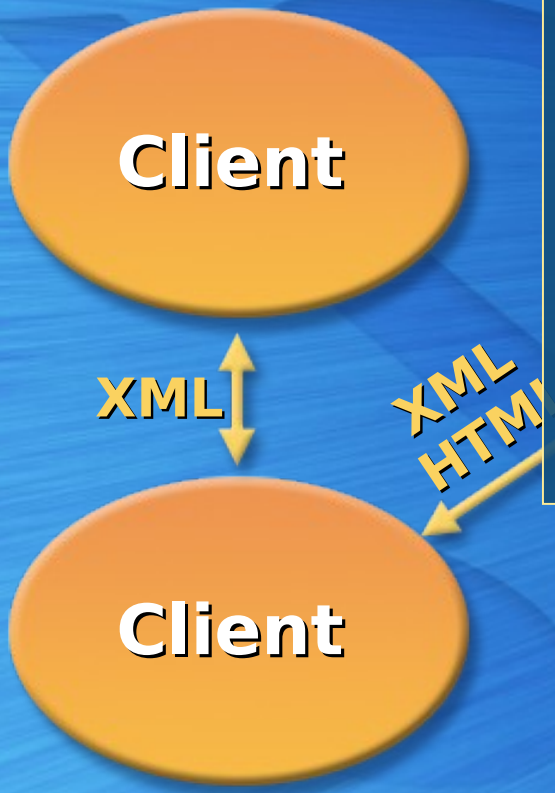


XML
Lingua Franca for Next Generation Software

A New Generation of Open Software

- Universal data format
- Standard-based integration
- Two-way and adaptive
  - Adapts to devices
  - Adapts sender to receiver
  - User customizable
- Programmable XML Web services

What Is An XML Web Service?



Simple, open, broad support

Publish, find, use services: **UDDI**

Service interactions: **SOAP**

Universal data format: **XML**

Ubiquitous communications: **Internet**

Benefits: **End-to-end automation;**
Share, analyze and act on the data

XML Web Service
Demo

- XML Web Service
  - Create new XML Web service
  - (no coding, just do it)

Benefits of XML Foundation

- **User: Beyond Browsing**
  - Access and act on information
  - Enables more control, better decision-making and easier collaboration
  - Optimal support for devices
- **Business: Best-of-Breed Integration**
  - Internal and external; processes and partners
  - Able to run business better and adapts over time
- **Industry: New Opportunities**
  - Can assign work to others

.NET
Building On an XML Foundation

Clients

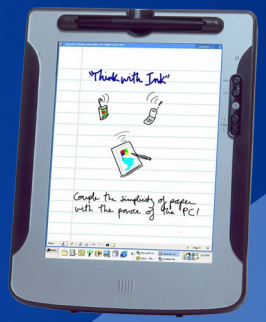
Tools

Web Services

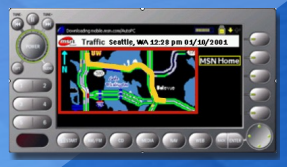
Servers

Experiences & Solutions

.NET Clients



PAY PER VIEW
MON JAN 29 7:19 PM
Classic Games
TODAY
SEARCH RESULTS:SPORTS
9:00 PM Road to the Pro Bowl 209 ESN2
9:00 PM Sports Century: Walter Payton 208 ECS
TOMORROW
116DTV Classic Games 206 ESPN2
115DTV Sports Century: Jim McMahon 208 ECS
120DTV Sports Century: Walter Payton 208 ECS



A new breed of Smart Clients

- Windows® powered
- XML
- Service-aware
- Works well alone

.NET Clients

	Today	Future
PCs	Windows 2000	Windows XP Tablet PC
Smart Devices	Pocket PC, Ultimate TV, Auto PC, Smartcard for Windows	N+1 releases “Stinger”, XBox
Enablers	Embedded Windows Windows CE	Embedded Windows XP Windows CE 4.0 .NET Framework .NET Compact Framework

.NET Servers

- Integrated suite for operating, managing and orchestrating Web Applications and services
- Enterprise reliability and scalability for the most demanding solutions
- Foundation for the next generation of business applications and services
- Scale out hardware performance, availability and economics
- Extensive XML support for integration within and across organizations

Microsoft .net Enterprise Servers

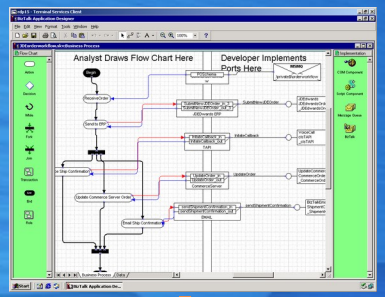
Microsoft Windows 2000 Server

BizTalk Server Orchestration

- Transaction management
- State management
- Process and data flow separation
- Messaging integration
- Leverage existing investments, enabling disparate systems to cooperate

BizTalk Orchestration Processes

izTalk Orchestration Designer



<XLANG>
Process
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.NET or COM

MSMQ

XML Web Service

Internal Applications

BizTalk Orchestration

BizTalk Messaging

BizTalk Editor

BizTalk Mapper

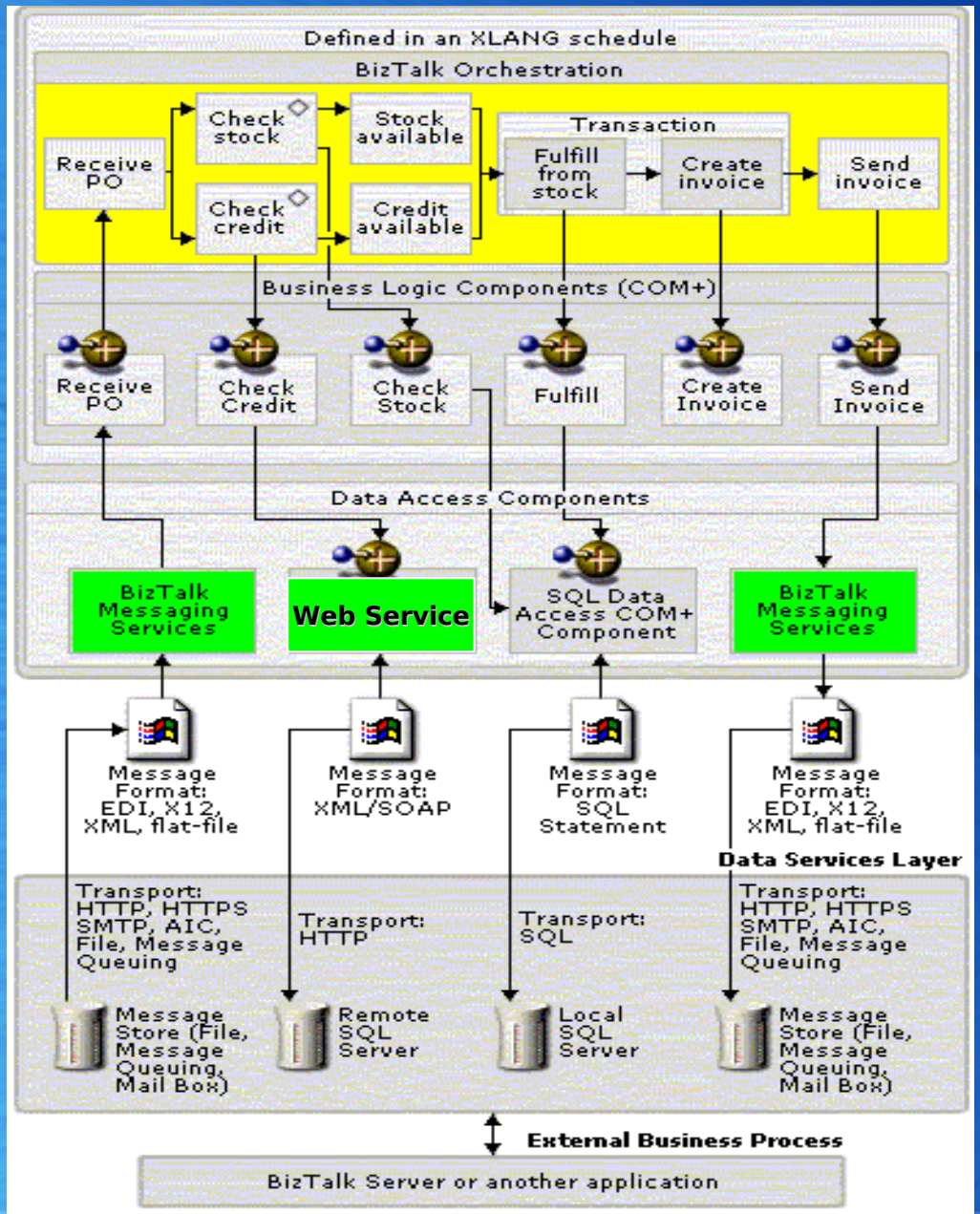
BizTalk Mngmt Desk

BizTalk Admin Conso

Web Service

B2B Trading Partners

BizTalk and Web Services



Orchestration Layer above Business Logic

Web Services and BizTalk Messaging are used to gather data

.NET Enterprise Servers

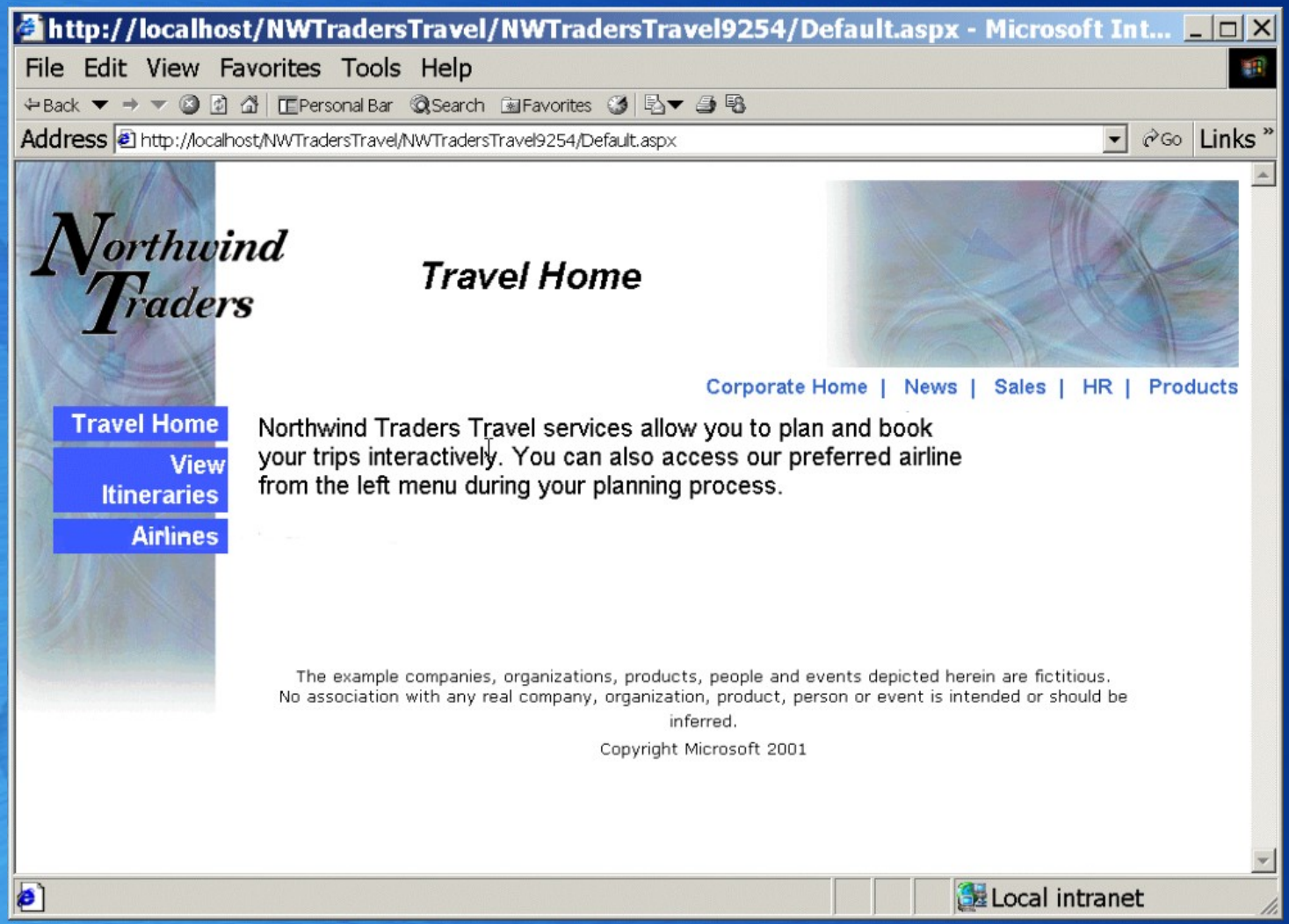
	Today	Future
Windows Servers	Windows 2000 Server Advanced Server Datacenter Server	Windows “Whistler” Server Advanced Server Datacenter Server
.NET Enterprise Servers	SQL Server BizTalk Server Host Integration Server Commerce Server Internet Security and Acceleration Server Application Center Exchange	N+1 Releases Mobile Information Server Supplier Accelerator

.NET Building Block Services

- **Microsoft Passport**
  - **Authentication service can provide single sign-on capability for any Web site**
  - **More than 160 million-plus active accounts**
- **HailStorm**

XML Web Service
Demo

- **Northwind Traders Travel Overview**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File Edit View Favorites Tools Help
Back Personal Bar Search Favorites
Address http://localhost/NWTradersTravel/NWTradersTravel9254/Default.aspx
Go Links
Northwind Traders
Travel Home
Corporate Home | News | Sales | HR | Products
Travel Home
View Itineraries
Airlines
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Local intranet

Summary
What Is .NET?

- A technology evolution built from the ground
- A standards-based platform that spans clients, servers and services
- XML Web services
- Consistent programming model, highest productivity tools for most extensive developer pool
- Lower total cost of ownership

Summary
The .NET Platform

- The .NET Platform has four components:
  - .NET Framework and Visual Studio .NET - The Integrated Development Environment and languages
  - Software for Smart Devices - The Mobil Internet Toolkit is a set of programming interfaces that enable developers to target mobile devices like smart phones and PDAs
  - Server infrastructure - MSMQ, COM+, Active Directory, IIS and WMI

Resources

- *The .NET Home Page* - The best “jump off” point for all things .NET
  http://www.microsoft.com/net/default.asp
- *Introduction to .NET* - An explanation of the philosophy of and logic behind .NET
  http://www.microsoft.com/net/intro.asp
- *What is .NET?* Here you will find a basic description of .NET services and functions
  http://msdn.microsoft.com/theshow/EPISODE011/default.asp

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